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HOME & GARDEN INFORMATION CENTER

Staking Tomato Plants

Everyone gets excited about growing tomatoes, and rightly so, as supermarket tomatoes just don't taste like the vine-ripened fruit produced in a home garden. However, the big dilemma in growing the tomato vines is how to keep them off the ground. Pre-made tomato cages are often too small, and larger tomato cages made from concrete reinforcing material are heavy, difficult to make, and a problem for off-season storage.

An easy solution for keeping tomato plants off the ground is staking. Of course, one stake can be used per plant, and then each plant is attached by clips or cloth strips, but buying numerous tomato stakes can get expensive if you choose to grow a dozen or more plants. To reduce the number of stakes needed for plant support, the method called the Florida weave can be used. Half the number of stakes is required because a stake is only inserted after every two plants in the row (see Illustration 1).

Illustration 1. A wooden plant stake is inserted in the row at each end, and after every 2 plants while the plants are still small.
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Tomato plants are spaced in the rows at 18 to 24 inches apart. At the end of each row and after every 2 plants, hammer into the soil 5- or 6-foot tall tomato stakes to about one foot deep. These tomato stakes should be 1-inch square to be sturdy enough to support the heavy plants.

When the tomato plants have grown to almost a foot tall and before they fall over, the process of stringing the plants should begin. The best string to use is actually tomato twine that can be purchased in a box at farm supply or feed & seed stores. Sisal or jute string tends to stretch allowing the tomato plants to flop over after a few rains, but the polypropylene tomato twine will not stretch and is extremely strong. The unique boxes of tomato twine have 2 slots on the side, through which a belt will fit. This allows the box to be held hands-free during the stringing process.

The special tool that makes the Florida weave system a quite easy method for stringing up tomatoes, is a 36-inch piece of ¾-inch diameter PVC pipe. Once the box of string is attached to your belt, feed the end of the string through the piece of PVC pipe. The end of the string protruding from the far end of the pipe is then tied securely to the end stake at about 10 inches from the ground (see Illustration 2).

Illustration 2. The box of tomato twine is attached to the belt, and the string is fed through a 36-inch section of PVC pipe.
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Hold the pipe almost vertically, and slowly allow the string to feed through the pipe while moving the lower end of the pipe and string around one side of the first plant, then between the first and the second plants, and finally around the far side of the second plant. Grip the pipe firmly and guide the string tautly around the second post 2 times. This process is now repeated with the next 2 plants, and so on as you walk down one side of the row, until you reach the stake at the end of the row.

Now the stringing will be repeated on the opposite side of the row. Weave the string around the first plant, which will actually be on the opposite side of the plant from the initial stringing. Run the string between the first and second plants, and then around the far side of the second plant. The string is tautly pulled and wrapped around the next stake. In this process, the tomato plants are being held upright by string on both sides of the plants (see illustration 3).

Illustration 3. Aerial view of tomato plants and stakes. The tomato plants are supported by string on each side that is pulled tightly, and then wrapped twice around the adjacent stakes.

Approximately each week, the stringing process is repeated at about 10 inches higher up the stakes each time (see Illustration 4).

Illustration 4. Four foot-tall tomato plants staked by the Florida weave system.
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Additional considerations: Tomato plants are much easier to support by the Florida weave system if they have been suckered. Suckering is the process of removing the stems that sprout in the joints of branches.

If the garden is large and you plan to plant numerous tomato plants, allow for a skipped space without a plant in the middle of each row. This creates a walk-through to get across one row to the next row.

If heirloom tomatoes are grown, these indeterminate plants can get exceptionally tall and very heavy when loaded with fruit. Consider using tall wooden stakes, but also use metal t-posts (available at feed & seed stores) as the end stakes for each row to give additional support. If the rows are very long, t-posts may be used instead of wooden stakes for every third stake position. This is important because mature heirloom tomato plants are so heavy that a strong wind can cause the wooden stakes to snap and the entire row to fall over.

For more information on growing tomatoes including variety selection, please see HGIC 1323, *Tomato*. For additional information on tomato diseases and insect pests, please see HGIC 2217, *Tomato Diseases* and HGIC 2218, *Tomato Insect Pests*.

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